

IN THE SEQUENCE LISTING

Please substitute the attached Sequence Listing, numbered as pages 1-5 for the one previously submitted.

REMARKS

Applicants are submitting a copy of Figure 15 with proposed revisions marked in red. The revisions to Figure 15 merely delete the redundant "X" at positions 1-13 of the amino acid coding region and correct the numbering. None of these revisions presents new matter. Approval of these revisions to Figure 15 is respectfully requested.

Applicants have added into the present specification a substitute paper copy Sequence Listing section according to 37 C.F.R. §1.821(c) as new pages 1-4. Furthermore, attached hereto is a 3 1/2" disk containing the "Sequence Listing" in computer readable form in accordance with 37 C.F.R. §1.821(e).

The present amendment to the Sequence Listing corrects a clerical error with respect to SEQ ID NO:4. SEQ ID NO:4 as previously submitted, only showed the untranslated nucleotide sequence designated as "B" in Figure 2. SEQ ID NO:4 as shown in the substitute Sequence Listing submitted herewith now comprises the complete sequence of SP22 mRNA transcript B as shown in Figure 2 and described in the description of Figure 2 on page 12, numbered paragraph 33. The amendment of SEQ ID NO:4 does not present new matter.

The following statement is provided to meet the requirements of 37 C.F.R. §1.825(a) and 1.825(b).

I hereby state, in accordance with 37 C.F.R. §1.825(a), that the amendments included in the substitute sheets of the sequence listing are believed to be supported in the application as filed and that the substitute sheets of the sequence listing are not believed to include new matter.

I hereby further state, in accordance with 37 C.F.R. §1.825(b), that the attached copy of the computer readable form is the same as the attached substitute paper copy of the sequence listing.

Under U.S. rules, each sequence must be classified in <213> as an "Artificial Sequence", a sequence of "Unknown" origin, or a sequence originating in a particular organism, identified by its scientific name.

Neither the rules nor the MPEP clarify the nature of the relationship which must exist between a listed sequence and an organism for that organism to be identified as the origin of the sequence under <213>.

Hence, counsel may choose to identify a listed sequence as associated with a particular organism even though that sequence does not occur in nature by itself in that organism (it may be, e.g., an epitopic fragment of a naturally occurring protein, or a cDNA of a naturally occurring mRNA, or even a substitution mutant of a naturally occurring sequence). Hence, the identification of an organism in <213> should not be construed as an admission that the sequence *per se* occurs in nature in said organism.

Similarly, designation of a sequence as "artificial" should not be construed as a representation that the sequence has no association with any organism. For example, a primer or probe may be designated as "artificial" even though it is necessarily complementary to some target sequence, which may occur in nature. Or an "artificial" sequence may be a substitution mutant of a natural sequence, or a chimera of two or more natural sequences, or a cDNA (i.e., intron-free sequence) corresponding to an intron-containing gene, or otherwise a fragment of a natural sequence.

The Examiner should be able to judge the relationship of the enumerated sequences to natural sequences by giving full consideration to the specification, the art cited therein, any further art cited in an IDS, and the results of his or her sequence search against a database containing known natural sequences.

Attached hereto is a marked-up version of the changes made to the specification by the current amendment. The attached page is captioned "Version with markings to show changes made".

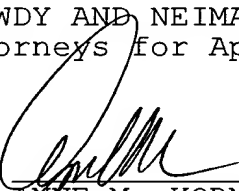
Applicants submit that the present application contains patentable subject matter and therefore urge the examiner to pass the case to issuance.

If the examiner has any questions or comments concerning the above described application, the examiner is urged to contact the undersigned at the phone number below.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the specification:

The paragraphs numbered 46 and 47 of page 16 have been amended as follows:

[0046.] Figure 15 shows the nucleotide (bases 190-980 of SEQ ID NO:2) and amino acid (SEQ ID NO:3) sequences of SP22.